Applicant: Ken G. Pomaranski et al.

Serial No.: 10/727,440 Filed: Dec. 4, 2003 Docket No.: 200209695-1

Title: SYSTEM AND METHOD FOR TESTING AN INTERCONNECT IN A COMPUTER SYSTEM

### **REMARKS**

The following remarks are made in response to the Office Action mailed July 29, 2005. Claims 1-19 were rejected. Claim 20 has been objected to. Claims 1, 5, 6, 13, and 17 have been amended. Claims 10, 12, and 20 have been canceled without prejudice as to the subject matter contained therein. Claims 1-9, 11, and 13-19 remain pending in the application and are presented for reconsideration and allowance.

# Claim Rejections under 35 U.S.C. § 102(e) and under 35 U.S.C. § 103(a)

Claims 1-6, 8-9, 11 and 17-19 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,609,221 (Coyle).

Claims 13-16 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,757,803 (Lin).

Claims 10, 12, 13-16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Coyle in view of Lin.

Claim 1, as amended, recites, inter alia:

an operating system;

a first component that comprises a first test module;

a second component that comprises a second test module; and an interconnect coupling the first component and the second component;

wherein the first test module is configured to provide a first signal to the operating system to cause the second component to be de-allocated from use by the operating system, and wherein the first test module is configured to provide a first test pattern to the second test module on the interconnect in response to a second signal from the operating system.

Coyle does not teach or suggest "wherein the first test module is configured to provide a first signal to the operating system to cause the second component to be de-allocated from use by the operating system, and wherein the first test module is configured to provide a first test pattern to a second test module on the interconnect in response to a second signal from the operating system" as recited in claim 1. Applicants respectfully note that the Office Action states, with

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reference to claims 10 and 12, that "Coyle et al does not mention the operating to cause the processor to be de-allocated and provide the second signal to the first test module in response to causing the processor to be de-allocated and the operating system to cause the expansion slot to be de-allocated and configured to provide the second signal to the first test module in response to causing the expansion slot to be de-allocated" Office Action, pp. 5-6. Accordingly, Applicants respectively submit that claim 1 patentably distinguishes over Coyle for at least these reasons.

Claims 2-9 and 11 depend from claim 1 and are believed to patentably distinguish over the cited references for at least the above reasons. Accordingly, Applicants respectfully request the withdrawal of the rejection of claims 1-9 and 11 under 35 U.S.C. §102(e).

The Office Action cites Lin as a teaching of the features of claims 10 and 12. Applicants respectfully submit that Lin does not teach or suggest "wherein the first test module is configured to provide a first signal to the operating system to cause the second component to be de-allocated from use by the operating system, and wherein the first test module is configured to provide a first test pattern to a second test module on the interconnect in response to a second signal from the operating system" as recited in claim 1.

As noted in the Office Action, Lin teaches that "[m]emory 906 is shared memory, in that blocks of memory 906 are allocated to process executing on processor 904, and the allocated blocks should be de-allocated when a process either finishes with the allocated region, or the process terminates, etc." Col. 9, lines 24-29. Lin also teaches that "[t]he blocks of memory are allocated to processes by the operating system 10,000." Col. 10, lines 15-16. Lin, however, does not teach or suggest a "test module" as recited in claim 1 and thus, does not teach or suggest "wherein the first test module is configured to provide a first signal to the operating system to cause the second component to be de-allocated from use by the operating system, and wherein the first test module is configured to provide a first test pattern to a second test module on the interconnect in response to a second signal from the operating system" as recited in claim 1.

Because Lin does not teach or suggest the features of claim 1 that are not taught or suggested by Coyle, Lin may not be properly combined with Coyle to support a rejection of claim 1 under 35 U.S.C. §103(a).

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Claim 13, as amended, recites, inter alia:

causing a component coupled to an interconnect to be de-allocated from use by an operating system;

performing a test on the interconnect subsequent to the component being de-allocated from use by the operating system; and

notifying the operating system in response to detecting an error in performing the test.

Lin does not teach or suggest "performing a test on the interconnect subsequent to the component being de-allocated from use by the operating system" as recited in claim 13. The Office Action cites column 1, lines 7-13 and column 9, lines 2-29 as a teaching of this feature. Applicants respectfully note that Lin does not teach or suggest this feature of claim 13 at these citations. In addition, Lin does not teach or suggest "notifying the operating system in response to detecting an error in performing the test" as recited in claim 13. The Office Action cites column 7, lines 7-20 as a teaching of this feature. Applicants respectfully note that Lin does not teach or suggest this feature of claim 13 at this citation. Accordingly, Applicants respectively submit that claim 13 patentably distinguishes over Lin for at least these reasons.

Claims 14-16 depend from claim 13 and are believed to patentably distinguish over Lin for at least the above reasons. Accordingly, Applicants respectfully request the withdrawal of the rejection of claims 13-16 under 35 U.S.C. §102(e).

In addition for claim 13, Coyle does not teach or suggest "performing a test on the interconnect subsequent to the component being de-allocated from use by the operating system" as recited in claim 13. Because Coyle does not teach or suggest the features of claim 13 that are not taught or suggested by Lin, Coyle and Lin may not be properly combined to support a rejection of claim 13 under 35 U.S.C. §103(a). Accordingly, Applicants respectfully request the withdrawal of the rejection of claims 13-16 under 35 U.S.C. §103(a).

Claim 17 has been amended to recite the features recited in objected to claim 20.

Accordingly, Claim 17, as amended, recites, *inter alia*, "a first error log configured to be written by the first test unit; and a second error log configured to be written by the second test unit ...."

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Coyle does not teach or suggest these features of claim 17. Accordingly, Applicants respectively submit that claim 17 patentably distinguishes over Coyle for at least these reasons.

Claims 18-19 depend from claim 17 and are believed to patentably distinguish over Coyle for at least the above reasons. Accordingly, Applicants respectfully request the withdrawal of the rejection of claims 17-19 under 35 U.S.C. §102(e).

## Allowable Subject Matter

Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. As noted above, Applicants have canceled claim 20 without prejudice and amended claim 17 to include the features recited in claim 20.

## **CONCLUSION**

In view of the above, Applicant respectfully submits that pending claims 1-9, 11, and 13-19 are in form for allowance. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1-9, 11, and 13-19 is respectfully requested.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to either David A. Plettner at Telephone No. (408) 447-3013, Facsimile No. (408) 447-0854 or Christopher P. Kosh at Telephone No. (512) 231-0533, Facsimile No. (512) 231-0540. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 28th day of October, <u>2005</u>.

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